

INVITED COMMENTARY

Commentary on “Male Sex Associated With Increased Long-term Cardiovascular Mortality After Peripheral Vascular Surgery for Atherosclerosis Despite Optimal Medical Treatment”

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Budtz-Lilly et al. suggest that males have higher mortality rates following surgical revascularization for lower limb ischaemia (LLI) compared with females.¹ These findings are, therefore, in conflict with findings in other arterial pathologies (abdominal aortic aneurysm/carotid disease/ischaemic heart disease) where female gender is associated with poorer outcomes. Previous studies of LLI, however, suggest that despite an increased risk of complications following surgery in women, there is no difference in mortality between genders.^{2,3}

Why then, might there be gender-related differences in outcomes in varying arterial diseases? In the study by Budtz-Lilly et al.,¹ there are methodological issues, in keeping with registry data, that might confound the results, including the definition of smoking, long-term compliance with medications, and lack of data regarding endovascular and conservative management of patients.¹ Although cause of death is not available, the high long-term mortality rates remain concerning, possibly because of lack of awareness of the associated risks of PAD.⁴ This needs urgent attention by the vascular community.

Cardiovascular (CV) disease, as a whole, is the main cause of death in both males and females, with the prevalence being higher in women.⁵ What is apparent is that although traditional CV risk factors are important and may account for some of the findings in this study, there are a number of gender-specific factors that need to be considered. These include both sex (biology) and gender (behavioral/environmental) factors. There is increasing awareness of prenatal/early childhood factors, pregnancy-related issues (gestational hypertension and diabetes), endocrine issues

(polycystic ovary syndrome/early menopause) as well as possible pharmacokinetic differences. Lastly there is a potential link to previous inequality from a social and political healthcare standpoint.

As the worldwide population ages, with women accounting for over 50% of those aged over 65 years, vascular diseases will continue to cause significant mortality. There is, therefore, a continuing need for further assessment of gender-related differences in patients with arterial diseases to guide optimal patient-specific treatment strategies.

REFERENCES

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